Docket No.: AM102286
Application No.: 10/582,531
Patent

IN THE CLAIMS

This listing of the claims replaces all prior listings of the claims for this application.

1. (Original) An isolated sodium channel type III α subunit ($mNa_v1.3$ α subunit) polypeptide, wherein the polypeptide comprises the amino acid sequence of SEQ ID NO:2.

2. (Previously presented) The polypeptide of claim 1, wherein the polypeptide consists of the amino acid sequence of SEQ ID NO:2.

3. (Canceled)

4. (Original) An isolated $mNa_v1.3$ α subunit nucleic acid molecule that encodes the polypeptide of claim 1.

5. (Original) The nucleic acid molecule of claim 4, wherein the nucleic acid comprises the nucleotide sequence of SEQ ID NO:1.

6. (Previously present) The nucleic acid molecule of claim 5, wherein the nucleic acid molecule consists of the nucleotide sequence of SEQ ID NO:1.

7-8. (Canceled)

9. (Original) An expression vector comprising the $mNa_v1.3$ α subunit nucleic acid molecule of claim 4 operably linked to a promoter.

10. (Previously presented) An isolated host cell comprising the nucleic acid of claim 4.

11. – 17. (Cancelled)

18. (Currently amended) A method for modulating a sodium current through a $mNa_v1.3$ channel, the method comprising: providing a sodium channel comprising a $mNa_{v1.3}$ α subunit polypeptide, wherein the $mNa_{v1.3}$ α subunit polypeptide is according to claim 1; and contacting the channel with a depolarizing voltage in the range of -80mV to 50mV ~~sufficient to cause the channel to open and a sodium current to pass through the channel~~.

19. – 47. (Cancelled)